

temperature/pressure exhaust. Filamentary material is shown at 3128A. Porting is not shown, but can be as described elsewhere in this disclosure. Solid arrows describe gas flows through ports, dotted arrows show gas flow to and/or from transfer ports or flows via passage or plenums as described elsewhere herein. Insulation is indicated (schematically, like all other components) at 3127. In Figure 408, insulation separates charge flow from hot components, charge flows into the combustion chamber, exhaust flow from it into a central exhaust gas reservoir. Obviously the flows could be reversed, volumes A and B transposed, insulation moved to the interface of component 3004 and the central (now charge) gas reservoir or plenum. Figure 409 shows a system having transfer ports, indicated schematically at 3128. Here again, the flows could be reversed, volumes transposed, insulation repositioned. Figure 410 shows a layout where exhaust gas flows adjacent to the structural component of 3004 and 3007 are used to reduce heat flows (i.e., thermal gradients) across these components, with the center of the engine occupied by a mechanical system 3130. If 3130 were a fuel delivery system, this could serve to maintain liquid fuel under pressure at temperatures greater than boiling. A compressor/turbine system is indicated at 3129/3134.—

#### IN THE CLAIMS

Please cancel claims 69, 120, 185 without prejudice or disclaimer, amend claims 61, 66, 67, 75, 106, 118, 121 and 184 and add new claims 195-197 as follows.

Please substitute the following amended claims 61, 66, 67, 75, 106, 118, 121 and 184 for the corresponding claims previously presented.

61. *(Twice Amended)* A device for the working of fluids comprising at least one cylinder assembly and a component reciprocable therein, said component having two longitudinal extremities and at least one circumferential projection, said cylinder assembly having at least one internal circumferential depression in which said projection is positioned to reciprocate, said projection and depression forming a pair of torroidal fluid working chambers of cyclically variable capacity, said component having at least one internal passage for movement of fluids to or from said working chambers, said assembly including a multiplicity of elements of ceramic material held in assembled and abutted condition by at least one fastener loaded in tension.

66. *(Twice Amended)* The device of claim 61, including a crankshaft to which crankshaft at least one of said extremities is linked.

67. *(Amended)* The device of claim 61, including a device known as a scotch yoke to which an end of at least one of said extremities is linked.

75. *(Amended)* The device of claim 61, including means defining a volume for passage of fluids to or from said working chambers, said means substantially surrounding said cylinder assembly.

106. *(Twice Amended)* A device for the working of fluids comprising a structure, at least one cylinder assembly having a circumferential depression and directly mounted in said structure and a component reciprocable in said

assembly, said component having two open cylindrical ends and at least one circumferential projection reciprocable in said circumferential depression in said assembly to form at least one pair of torroidal fluid working chambers of cyclically variable capacity, said component having at least one internal volume for passage of fluids to said working chambers, said structure including insulating material to restrict heat transfer from said assembly.

118. (*Amended*) A device for the working of fluids comprising a structure, a cylinder assembly mounted in said structure, a component reciprocable within said assembly, filamentary material, said component having at least one longitudinal extremity and at least one circumferential projection, said cylinder assembly having at least one circumferential depression in which said projection is positioned to reciprocate, said projection and depression defining a pair of torroidal fluid working chambers of cyclically variable capacity and means defining a volume for passage of fluids to or from said working chambers, said means being substantially located within said structure, said volume containing said filamentary material.

121. (*Amended*) The device of claim 118, wherein said structure at least partly comprises insulating material.

184. (*Amended*) A device for the working of fluids comprising a device known as a scotch yoke having at least one elongate slot, at least two crank and crank-pin assemblies, a cylinder assembly and a component reciprocable within said assembly, said component having at least one longitudinal extremity and at